COALESCING RECONNAISSANCE, COUNTERRECONNAISSANCE and the IPB Process in the Light Infantry Brigade

A Monograph
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This monograph explores the reconnaissance and counterreconnaissance requirements needed to conduct the intelligence preparation of the battlefield (IPB) process effectively in a light infantry brigade. It considers current and past reconnaissance and counterreconnaissance capabilities of the light infantry brigade and battalion. It also examines how these operations fit into the IPB process.

One constant weakness identified in units attending the Combat Training Centers has been the planning and execution of reconnaissance and counterreconnaissance. Many of the weaknesses have been attributed to the inability of staffs and commanders to integrate recon and counterrecon into their planning process. Similarly, many staff weaknesses can be directly attributed to failures in recon or counterrecon. As the Army transitions from Air Land Battle to AirLand Operations, recon and counterrecon will play an even greater role in warfighting. This paper explores the synergistic effect that these operations and the IPB process have on one another and how to reduce the friction that currently exists between them.

Considering historical observations, current capabilities, and future needs, this study focuses on the intelligence gathering requirements of the light infantry brigade. It presents training, doctrine, equipment, structure and leadership changes needed to improve brigade capabilities to conduct recon and counterrecon today and in the future. The recommendations presented in this monograph will lead to an infantry brigade that is ready to fight and trained to win.

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I. Introduction

If I am able to determine the enemy's dispositions while at the same time I conceal my own then I can concentrate and he must divide. And if I concentrate while he divides, I can use my entire strength to attack a fraction of his. There, I will be numerically superior. Then, if I am able to use many to strike few at the selected point, those I deal with will be in dire straits.[1]

Sun Tzu

Although written almost 2500 years ago, Sun Tzu captures the essence of the reconnaissance and counterreconnaissance battle that must be fought on today's Airland battlefield. Effective reconnaissance (recon) and counterreconnaissance (counterrecon) are precursors to victory. Accordingly, commanders and their staffs must understand the value of reconnaissance to determine enemy dispositions, conduct counterrecon to conceal their own dispositions and integrate these missions into their intelligence plan.

The complex interrelationship between recon, counterrecon and the intelligence preparation of the battlefield (IPB) is the subject of this monograph. The focus will be on the ability of our light infantry battalions and brigades to conduct the recon, counterrecon and intelligence gathering functions. Airborne, air assault, regular and light infantry are considered light forces for the purpose of this study. Ultimately, this study will seek to determine the recon and counterrecon requirements needed to conduct the intelligence preparation of the battlefield (IPB) process effectively in a light infantry brigade.

Historical observations and after action reports from the Combat Training Centers provide a keen insight into the importance of recon and counterrecon. They also show how the intelligence cycle supports the commander's intent. This monograph develops a detailed methodology to examine recon, counterrecon and the IPB process in combat operations on

today's modern battlefield and looks at possible requirements for the future.

II. Methodology

The methodology will outline the concept for the organization of the monograph, as well as the criteria used to examine the research question. Following the discussion of the methodology, the monograph will consist of seven sections. Doctrinal definitions and requirements for recon, counterrecon and the IPB process will be presented first. Then a close examination of two historical examples and observations from the Joint Readiness Training Center (JRTC) will be accomplished. Collecting these observations will provide the formulation for a detailed analysis covering how recon and counterrecon are conducted today. In similar fashion the conduct of the IPB process will also be examined. Clearly, Airland Operations will bring even further intelligence challenges to the infantry brigade. As a result, a short discussion of the additional challenges of Airland Operations will also be presented. Considering historical observations, current capabilities, and future needs, the study will then focus on the intelligence gathering requirements of the light infantry brigade. The conclusion will examine those requirements in view of selected criteria.

The criteria to be used in this study reflects the essential characteristics of recon, counterrecon and the IPB process and will serve as the principal means of critical analysis. Recon will be evaluated in light of four criteria, counterrecon on two criteria and the IPB process on three criteria.

The criteria for analyzing reconnaissance operations will be flexibility, timely reaction to orders, accuracy in reporting and the ability to conduct continuous operations. Flexibility is obviously a key

ingredient to any recon operation. Brigades and battalions must possess a recon capability that is flexible enough to complete assigned missions successfully. In addition, this recon capability is required to conduct a variety of missions, many of them simultaneously. Recon must also be timely to support the mission assigned. Reconnaissance that is not timely will provide information that is no longer useful in the planning process and could set the stage for disaster. Accuracy in reporting intelligence information is always critical. Any recon asset deployed on the battlefield, from the individual soldier on the ground to aircraft flying above the ground, needs to be able to report information accurately. Finally, reconnaissance must be continuous and redundant. Continuous reconnaissance is critical for combat operations. It must also be redundant so if one asset fails, another is in position to gather the required information.

Any system for counterrecon must have an ability to respond rapidly to enemy threats and defeat the enemy's capability to conduct reconnaissance. Units conducting counterrecon are required to respond quickly to enemy actions by proper positioning or by rapid maneuver. The counterrecon force must then be able to defeat the enemy's recon capability. For the counterrecon process to be effective, information must be gathered through good recon and analyzed during the IPB process.

The IPB process is inseparable from recon and counterrecon operations. An effective unit IPB process integrates the commander's priority intelligence requirements (PIR) and guidance early, so recon missions can be accomplished prior to the conduct of operations. Staffs must also be able to integrate recon and counterrecon into their staff planning process at the appropriate times. For example, recon can be used very early in the planning process to help identify key terrain and

current enemy dispositions, while counterrecon must be a continuous process throughout all planning. Reconnaissance attempted too early is usually unfocused and produces limited results. Reconnaissance that is too late is worthless because the scheme of maneuver cannot be effectively modified to integrate the new information. Counterrecon must be focused to destroy the enemy's capability to observe at the proper time and place as determined in the staff planning process. Finally, both recon and counterrecon are key ingredients in any deception effort. Recon that is too focused may give away intentions, counterrecon that is too good may not allow the enemy to see deception efforts being conducted.

III. Definitions and Requirements for the IPB Process, Recon, and Counterrecon

This section will outline the basic definitions of these terms and discuss the basic requirements needed to conduct combat operations. The IPB process will be discussed first. Recon doctrine and assets at both the brigade and battalion level will then be addressed. Finally, the counterrecon effort will be discussed in detail. (See Appendix A for the doctrinal definitions of recon, counterrecon and the IPB process).

Intelligence Preparation of the Battlefield (IPB) is the key to preparing for future combat operations. It is a continuous process which supports planning and execution for all operations.[2] Both the commander and the mission drive the IPB process. First, the commander provides planning guidance to his staff. In that guidance he should include his initial PIR. If he does not specify PIR, the IPB procedure will assist the staff in developing PIR for his approval. The process is similar at battalion or brigade level, but is "more informal" than it is at higher headquarters.[3] Since understanding IPB is essential to this study, a quick review of the formal IPB process is in order.

IPB is a process, not a product. In Military Intelligence, Colonel Mark Hamilton states that IPB, " . . . is not a noun, it is a verb - active, interactive, continuous."[4] IPB is a procedure in which the entire staff and the commander actively participate. Nevertheless, the S2 usually takes the lead. The five step process includes battlefield area evaluation (BAE), terrain analysis, weather analysis, threat evaluation and threat integration.

During BAE, the staff identifies the portion of the battlefield of interest to the unit for a particular mission. Throughout the process the commander must see the entire battlefield in terms of depth, width, airspace and time. This includes defining the area of operations (AO) and the area of interest (AI). The area of operations is depicted generally by the graphics provided by a higher headquarters. The area of interest for a battalion or brigade is defined in FM 34-2-1, Reconnaissance and Surveillance and Intelligence Support to Counterreconnaissance, in terms of time and space.[5]

The next two steps of the IPB process are terrain and weather analysis. Both areas are studied to see how they affect friendly and enemy operations. The terrain analysis includes the entire area of interest. The weather analysis forecasts the weather's effect on current as well as future operations.

The fourth step of the process is threat evaluation, which is a detailed study of enemy dispositions, compositions, tactics, training, readiness, logistics and other factors. Doctrinal templates play a critical role in this step. This phase also helps identify high value targets, whose identification is critical in reconnaissance and surveillance (R&S) planning.

The fifth and final step in IPB is threat integration. It is a

sequential process that includes developing three templates; situational, event, and decision support. The situational template displays how the enemy might modify his doctrinal template due to the effects of the terrain and weather. The event template identifies key enemy actions or decisions which drive the identification of named areas of interest (NAI) and time phase lines. It is developed to help confirm or deny the situational template. The event template also forms a basis for the S2's R&S plan. Finally, the decision support template (DST) is developed. The purpose of the DST is to synchronize all battlefield operating systems (BOS) to the commander's best advantage.[6] A total staff effort, the DST is the product of the wargaming effort. The IPB process by itself is incomplete unless coordinated with the other critical staff functions.

The IPB process must be closely linked to two other processes: troop leading procedures and the intelligence cycle. During troop leading procedures reconnaissance must be done before completing the plan. This is a doctrinal shortfall. The IPB process as described in our manuals does not adequately address this interaction.

The intelligence cycle consists of directing, collecting, processing and disseminating intelligence information. The IPB process is actually a subset of the intelligence cycle. As such, the two mutually supportive procedures must be completely synchronized. By itself, the IPB process as described above provides limited information to the commander. It serves the commander best when linked to productive recon efforts.

The IPB process guides the commander and his staff in effectively orienting R&S asset employment.[7] Recon missions are starting points for the commander to obtain specific information he needs to make an estimate and prepare a plan to attack enemy weaknesses. As a combat multiplier, recon also gives the commander the time and space to position

maneuver forces to conduct successful combat operations.[8] By having detailed intelligence concerning enemy dispositions and intentions the commander is capable of getting inside the enemy's decision cycle to conduct operations according to his own plan. To be more effective, physical reconnaissance must start as early as possible and continue throughout an operation. In doing so, recon can help reduce the effects of "fog " on the battlefield and it is the basis for winning battles. In fact, a 1988 Rand Study of NTC battles produced irrefutable evidence of the relationship between successful recon and mission accomplishment.[9] In order to conduct this recon effectively, commanders require forces dedicated to this mission, as well as other assets who assist in the recon mission as a secondary effort.

Understanding the available recon assets is key to understanding the recon effort. Infantry in Battle states a simple rule: "Infantry commanders of all grades are responsible for continuous reconnaissance."[10] Within the light infantry brigade, reconnaissance assets are focused at two levels; the infantry battalion and the brigade itself. The light infantry battalion's primary intelligence gathering means are subordinate maneuver companies, patrols, scouts, OPs and FISTs. Of these assets, scouts are the most critical.

Although extremely important, the scout platoon is relatively small (19 soldiers) and it lacks organic mobility. According to FM 7-72 the scouts can operate 2 to 8 kilometers (km) from the battalion.[11] In contradiction, FM 34-2-1 states that they normally operate 500 to 1000 meters away from the battalion. This contradiction will be discussed in more detail later when discussing the requirements for scouts. Also, doctrinally, the scouts have a sniper requirement assigned as an extra mission. There are no organic snipers, just scouts assigned a M24 sniper

weapon system.

Each light infantry battalion is composed of three maneuver companies and a headquarters company. Airborne and air assault battalions have an additional TOW company consisting of twenty TOWs mounted on HMMWVs. The TOW and Dragon night sights can provide good observation capabilities within the battalion. These night vision assets, coupled with the proliferation of other night vision sights, give the battalion 24 hour recon capability. In support, the infantry battalion can expect one or more AN/PPS-15 ground surveillance radar (GSR) team. The GSR's range for moving personnel is 1500 meters and it can detect moving or idling vehicles out to 3000 meters.[12] The remotely monitored battlefield sensor system (REMBASS) is also available to support the infantry battalion.[13] Other non-organic assets that normally support the battalion also have a recon capability. Although extensive, these assets have recon as a secondary mission.

The supporting elements that routinely operate with an infantry battalion bring their own recon assistance. For example, engineers can greatly assist in the recon of obstacles and routes. Air defense assets provide coverage of air avenues of approach, as well as access to air intelligence information through their higher headquarters. Fire support teams (FIST) and the fire support element can also provide great intelligence support through their fire support channels. Additionally, Army and Air Force aviation assets, if available, can provide recon capability. Even with all of this support, the key recon assets for an infantry battalion remain the battalion scout platoon and infantry patrols from the maneuver companies. As a result, the maneuver battalion must look to the brigade for the timely intelligence it needs but which is beyond its capability to collect. Yet, in doing so, it finds only a

mirror image of its own ground recon capabilities.

The infantry brigade's only organic reconnaissance assets are those in the infantry battalions. There are no organic assets directly available to the brigade commander. Instead, the brigade commander has extensive support task organized to the brigade. These assets are functionally similar to those available to the battalion. An intelligence and electronic warfare (IEW) company team usually supports the brigade. Normally it provides an IEW support element (IEWSE), a collection and jamming platoon, counterintelligence teams, interrogation teams and GSRs.[14] The direct support artillery battalion provides FIST elements and access to the TACFIRE artillery target intelligence (ATI) file of the DIVARTY. The supporting engineer company and the air defense battery provide intelligence information as well. Army aviation support, whether lift, attack or recon assets, can also provide excellent real time information to the brigade commander. Support by Air Force aviation can also be integrated into the recon effort through the brigade air liaison officer (ALO). Of course, as with its subordinate battalions, the brigade also depends on higher or adjacent headquarters for intelligence information.

At both the battalion and brigade levels, the S2 is responsible for writing and coordinating the R&S plan and monitoring the intelligence input. The S3 tasks organic and supporting assets to support the R&S plan and monitors its execution.[15] Additionally, commanders and staffs must personally conduct reconnaissance either to help plan operations or to verify decisions made during the planning process. The IPB process helps guide the commander in the effective employment of all of his recon resources. The recon resources must focus on the commander's PIR and IR in order to develop the situation fully and provide the commander with the

intelligence he needs to control the battle effectively. This is not an easy task to accomplish in a timely manner. In his book, Infantry in Vietnam, LTC Garland stated: "One of the most difficult problems in Vietnam is to find the enemy, because war has neither a front or rear."[16] The staff has the responsibility to take this effective recon and direct a counterrecon effort. Recon requires the integration of all available assets, guided by the R&S plan, to remove the "fog" of war. Counterrecon is equally important to increase the "fog" of war for the enemy.

Counterrecon measures must be integrated into the detailed R&S plan developed by brigades and battalions. They include both active and passive measures to defeat or deceive enemy reconnaissance elements. Counterrecon is one of the Army's newest doctrinal terms. In fact, the term is not contained in the current version of FM 101-5-1, Operational Terms and Symbols. It was accepted in December 1988 as a doctrinal term as a result of a special recon and counterrecon study.[17] That study recommended that the definition published in JCS Pub 1-02 be accepted as the Army's doctrinal definition. See Appendix A for the definition of counterrecon. Even though it is a new term, the current drafts of FM 7-20 and 7-30 provide some insight into the subject at the battalion and brigade level. Together the drafts of FM 7-20 and 7-30 provide the doctrinal basis for counterrecon operations.

Counterrecon must be conducted during all combat operations, although current doctrinal manuals tend to associate it with defensive operations. All maneuver units, down to the smallest level, must plan to counter enemy recon efforts with both active and passive measures. Active measures to detect, fix or destroy the enemy include combat patrols, fire support, and other assets to defeat enemy recon. Passive measures attempt to conceal

friendly forces and deceive or confuse enemy forces. These measures include camouflage and concealment, signal security, and other measures to prevent enemy observation. All the reconnaissance assets previously described can be used to identify enemy recon elements. Once located, those enemy recon elements may be targeted with lethal and nonlethal means to insure they cannot perform their mission. The effective use of obstacles can also redirect or disrupt enemy recon elements.

As with recon, counterrecon efforts will be conducted at the battalion level or by using battalion resources under brigade control. There are two types of forces needed; the "finders" and the "killers". The "finders" are those recon assets mentioned earlier. The "killers" are maneuver or fire support assets capable of destroying enemy recon elements. In the defense, a company/team can be pushed forward from the battalion to accomplish the counterrecon mission and then can be pulled back into the main battle area (MBA) for the execution of the defense. This is a difficult mission to synchronize. It obviously assumes risk since the company may not make it back to the MBA with the ability to fight. Another counterrecon technique mentioned in FM 7-20 is to use the HHC commander, or the assistant S3, to command an ad hoc counterrecon force.[18] Ad hoc organizations on today's battlefield however, do not usually work well.[19] Offensive counterrecon is exemplified by the use of a strong advance guard to maintain the freedom of maneuver for the main body. (See Appendix B for additional counterrecon considerations).

As with IPB, planning the recon and counterrecon effort is a total staff effort. The S2 plays a key role in identifying possible enemy recon approaches and targets while the S3 assigns units to fight the counterrecon battle. The counterrecon plan not only extends forward to find enemy recon elements but throughout the depth of the brigade sector,

covering command posts and CSS assets. In addition, it must be determined what the unit does not want the enemy to know. Simply stated, the IPB process must determine the nature of the enemy recon threat. This understanding forms the basis for any deception efforts.

Based on the IPB process, deception must have specific objectives. The deception effort is tied closely to the recon and counterrecon battle. Reconnaissance operations must not give away friendly intentions. In fact, extensive recon can be used to deceive the enemy about the exact intentions of a friendly attack. Deception must also be closely coordinated with the counterrecon fight to insure the enemy can see the deception. Otherwise, the deception effort is fruitless. As can be seen, this entire process demands detailed and coordinated planning at all levels.

Clearly, the coordination of recon, counterrecon and the IPB process is critical to success in combat. Before this monograph takes an in-depth look at our current system, it will briefly describe some historical failures and successes related to recon and counterrecon.

IV. Historical Perspectives on Recon and Counterrecon

Military history provides many examples of recon and counterrecon, both good and bad. Generally, history has shown predictable results in this area as well. If recon and counterrecon are properly accomplished, missions have a high probability of success. If they are not, they have a high probability of failure. The examples provided in this monograph describe both situations by analyzing two battles. The first battle occurred on the Russian Front during WWII, while the second occurred during the Falkland Islands War. They have been selected for their ability to show the tragedy that occurs because of the failure to conduct recon and the superb success that can occur if it is done properly.

Following these two battles will be a short summary of comments made by Major Scott McMichael on the historical value recon and counterrecon have to light infantry units.[20]

In the winter of 1941-42, the German 547th Infantry Regiment advanced from Poland into the heart of Russia as part of Operation Rheingold. On 31 December 1941, the regiment began a 1200 km roadmarch from Treuburg, Poland. Its mission was to gain contact with the Russians in the vicinity of Surazh in the USSR. The Germans marched 30-40 km per day in extreme weather conditions (snow and temperatures between zero and -40 degrees Fahrenheit) with inadequate clothing, shelter and rations. On 10 March 1942, upon completing their march, they were committed into battle and were initially successful.

On 12 March the Germans attacked to seize the town of Bulina. Third Battalion followed First Battalion as far as Bulina and then moved towards Hill 162 (five kilometers south of Ratskoviny). Third Battalion was unable to find shelter on Hill 162 so they left a security detachment and moved into the towns of Ossova and Skugriv. This movement was not reported to regiment. Nevertheless, the Third Battalion entered the villages after dark and occupied the buildings. Reconnaissance was not conducted and no security precautions were taken. The Russians saw the Germans approach and hid in basements, attics, barns and stables. In the early morning a Russian surprise attack proved disastrous for the Germans.

The Third Battalion commander, three company commanders and over 200 men were killed or captured. One officer and 150 men eluded the enemy and made their way back to Bulina. The German 3d Battalion, 547th Infantry Regiment was utterly destroyed and unable to participate in any further fighting.[21] Although the conditions for this battle were extreme, there was no excuse for the lack of recon and security. Soldiers paid dearly

for the mistakes of their leaders. Even though this small battle pales in comparison to others on the Russian Front, it is an excellent example of the tactical consequences of the failure to conduct effective recon, counterrecon and planning.

The failure of the Germans to conduct proper recon led to their total defeat. Analyzing the example using the recon criteria for analysis presented in section II several key facts become evident. The Third Battalion was not flexible in its recon effort. They did not have the flexibility to conduct reconnaissance of the towns of Ossova and Skugriv before occupying them. Their recon effort did not react in a timely manner, since they did not recon the cities. Not only was there a lack of accuracy in reporting what was in those cities, but the battalion also inaccurately reported to the regiment, which may have provided them some insight into their predicament. Finally, it was obvious that the leadership of the battalion was tired and they made mistakes. The unit were no longer capable of continuous operations.

Counterrecon is to be judged by two criteria. The German battalion was not able to respond to enemy threats because it failed to conduct reconnaissance efforts. They could not defeat the enemy recon because they were unable to find the enemy.

As mentioned earlier, the IPB process was to be looked at through three criteria. Although little information is available on the German planning process, several assumptions can be made. Either the commander did not designate PIRs or the staff failed to answer them. He provided little guidance for recon or security operations. The staff did not integrate recon or counterrecon into their planning process.

Success in recon and counterrecon missions is best exemplified in the war in the Falkland Islands. Specifically, the attack by the British

Army's 2d Parachute Regiment (2 Para) on Darwin and Goose Green provides an excellent example. Unlike the preceding example, it is a superb example of light infantry recon and counterrecon operations.

As part of 3 Commando Brigade, 2 Para received the mission to attack Goose Green and protect the Brigade flank while 45 Commando and 3 Para moved overland to seize Port Stanley. (See Appendix C for a map of the operation). LTC Herbert Jones commanded 2 Para. Organized into four rifle companies and a support company the battalion lacked transportation and adequate fire support.[22] Their only supporting fires were two 81mm mortars, three 105mm howitzers, a 4.5 inch gun from the frigate HMS Arrow and limited Harrier support.[23] Due to extensive reconnaissance and security patrolling, (at least two platoons at all times), the battalion was able to move quickly from the beachhead to the Camila Creek House, eleven miles away, without contacting the enemy. The entire battalion was housed in or around Camila House on the night of 27 May.[24] Local security was established and two platoons from C Company were sent to conduct reconnaissance near the battalion attack positions and the objective. During the night and into the next morning, these platoons pinpointed Argentinian antitank (AT) positions, bunkers, and machine gun positions. They also found at least 16 trucks in the area.[25]

While the recon and security operations continued on the 28th, the battalion made final preperations for the attack. As the recon elements withdrew from the objective to report to the commander, they captured an Argentinian officer and three men. It turned out that the officer was the leader of the Argentinian reconnaissance element at Goose Green.[26] After interrogating the prisoners and receiving the recon report, LTC Jones issued his final orders and the battalion was ready to move. It is important to note that LTC Jones did not issue his final order until the

return of the recon elements.

C Company would precede the battalion in a recon screen followed by A and B Companies attacking along either side of the isthmus that led to Goose Green. D Company was initially the reserve and would pass through B Company to continue the attack on order. Supporting the attack was Support Company with three Milans (17 missiles), six machineguns and the battalion snipers. In addition, each company also had a sniper team.[27]

C Company departed at 1800 hours on the 28th to secure the start line (attack positions), four miles away. C Company had extensive engineer support in their movement to the start line.[28] Once C Company secured this line, they provided guides to the other companies. At 0235 A Company left the attack position.

The Argentinians fought more bravely than anticipated. Strategic recon (SAS and other national assets) had put the Argentinian strength at two to three companies who would give up quite easily.[29] The British planned to control Goose Green by 1030 hours, but they found the Argentinian resistance very stiff and did not even get to the vicinity of Goose Green by daylight.[30]

The battle of Goose Green was fought throughout the 29th. About mid-morning the British attack stalled and LTC Jones was killed. Major Keeble took command of the battalion and continued the fight. By approximately 1600 hours the British had Goose Green surrounded. Major Keeble sent two Argentinian prisoners to Goose Green to demand the surrender of the garrison, which occurred at 1000 hours on the 29th. In total the British captured over 1200 Argentinians and killed over 250. 2 Para, meanwhile, lost 17 killed and 35 wounded, including the battalion commander.[31]

The superb tactical intelligence developed by the British and their

excellent counterrecon capability insured victory over an enemy four times their size. Strategic intelligence did not provide the necessary information to the battalion to conduct the attack successfully. Not only is this a case of British success, but a case of absolute failure on behalf of the Argentinians. 2 Para moved a great distance over rugged terrain and, although the BBC inadvertently warned the Argentinians of the impending attack, was able to surprise the defenders in Goose Green and capture it with minimum losses. Accumulation of excellent knowledge of Argentinian positions provided by 2 Para's own reconnaissance elements and their unhampered movement to the objective guaranteed by its expert counterrecon ability, insured victory for the British.

In view of the analytical criteria developed in section II, the British attack was a complete success and the Argentinian's defense a complete failure. 2 Para's recon was extremely flexible. It was able to react quickly to changing situations and it discovered the true extent of the Argentinian defenses around Goose Green. Recon efforts were extremely timely and provided the appropriate information to the commander at the required time. The recon element's reports were highly accurate and allowed the battalion to suffer minimum casualties in relation to the enemy. 2 Para was able to conduct continuous recon from the time they were on the beach until the completion of the operation.

The British counterrecon efforts were also superb. They were able to identify and defeat the enemy recon efforts. They even managed to capture the Argentinian recon leader. The counterrecon effort was helped even more by using a screening company during the movement to the attack positions. This company allowed the battalion to move quickly and safely to a line where they could begin to engage the main enemy forces without being observed.

Their planning process fits the criteria perfectly. The commander designated his PIRs and gave complete guidance to the recon teams, including when he required the information. The staff was able to give guidance to the recon teams early and they were able to modify their tentative plan with the information their recon assets provided.

Major Scott McMichael's historical study of light infantry in Burma, Korea, Malaysia, Borneo and Europe draws several key conclusions on light infantry that can reinforce some of the observations noted above.[32] First, he concludes that; "Each case study in this report demonstrated that accurate, timely intelligence is vital to the success of light infantry operations."[33] In support of this finding he stresses the need for tactical level reconnaissance to develop this intelligence. Tactical level intelligence assets in his study consisted of intelligence gathered in battalion and brigade size organizations. He also stressed that units need to spend a great deal of time conducting patrols to meet their own intelligence needs. Furthermore, McMichael points out the need for accurate recon and effective counterrecon; "To be effective, light infantry forces must know what the enemy is about, while keeping the enemy in the dark about their own intentions."[34] Surprise, shock and speed are the three main characteristics of light infantry. These characteristics can only be effective when supported by in-depth reconnaissance. McMichael points out that: "through pre-attack reconnaissance, light infantry leaders determine the weaknesses and gaps in enemy dispositions, which then become the objects of attacks."[35] "Decision making in light infantry is also characterized by speed."[36] This speed allows leaders to get inside the decision cycle of enemy commanders and gain the advantages of anticipation and initiative. McMichael's study clearly shows that effective recon is a precursor to

success for the light infantry battalion or brigade. Since recon is so important to success, counterrecon must be equally important in order to prevent the enemy from gaining the upper hand in the recon arena.

History clearly shows that timely and accurate intelligence is critical to the successful accomplishment of any light infantry mission. Accurate intelligence is a virtual imperative for light units in order for them to focus combat power at the decisive time and place. Light infantry operations are also extremely sensitive to intelligence gathering against them and they must also provide adequate security to prevent the enemy from gathering intelligence. McMichael's findings and the two historical examples clearly show that a pattern exists in contemporary warfighting that links the effectiveness of recon and counterrecon operations with the overall success of a battle. This trend is further exemplified by the current experiences at the Army's Combat Training Centers.

V. Reconnaissance, Counterreconnaissance and the IPB Process at the Combat Training Centers

Experiences at the Combat Training Centers (CTCs) provide a keen insight into the conduct of recon, counterrecon and intelligence collection in our light infantry brigades. The primary source for training observations in this monograph is the Joint Readiness Training Center (JRTC). The National Training Center provides many pertinent observations as well, but its primary focus is on heavy force operations. Recent JRTC experience has provided some positive feedback on these subjects, but it has also clearly displayed the need for great improvement in our recon and counterrecon capabilities. This portion of the analysis in this study will focus on training observations from two levels of command; brigade and battalion. Each level will be analyzed with respect to three battlefield operating systems; command and control, intelligence

and maneuver.[37] Although there are also many positive trends identified at the training centers, this analysis will generally deal with the negative observations made at the CTCs. Observations at the brigade level will be discussed first.

As previously described, successful recon or counterrecon missions begin with a detailed and coordinated planning process. At JRTC, brigade staffs are continually criticized for a lack of an integrated staff planning process. Many plans are developed by the commander and the S3 in a vacuum, with little input from the S2, the engineer, the fire support officer or any other staff member. Even when other members of the staff do participate, they tend to "go off" in a corner and conduct their own planning, with little discussion or interaction between other staff members. Often brigade commanders short circuit the orders process by directly or indirectly specifying a desired or favored course of action (COA).[38] This inability to conduct an objective and effective staff estimate process, and to plan integrated follow-on, operations has a dramatic effect on the intelligence aspects of the battle.

The problems in the intelligence battlefield operating system (BOS) begin with the lack of a collection plan to support the battle. Collection plans are neither prioritized nor focused to obtain the critical intelligence necessary to support the scheme of maneuver. LTC(P) Crawford and LTC(P) Hensler found that collection plans were a severe weakness in the units they observed.

> Fifty percent of the units had difficulties in this area and failed to allocate adequate assets to obtain needed information. Important information is often unavailable to the commander because insufficient collection resources were applied. In several cases, information was identified as PIR by the commander but was never obtained because no one was sent to get it.[39]

In the few instances when an initial IPB was adequately accomplished and intelligence assets were properly focused, the intelligence effort

fell apart as the staff could not analyze incoming information and could not answer the questions that would fulfill their PIR. Since they could not confirm or deny their initial estimate, they were unable to refocus the collection effort in order to provide updated information as the battle progressed.

As a subset of the intelligence cycle, IPB is most dominant in the directing and collecting phases. Many units focus on IPB and do not give adequate attention to the other phases of the cycle. In Crawford and Hensler's study, this fault was noted by the following observation made in several Take Home Packages (THP):

> The unit was consistently inefficient in its application of the intelligence cycle. Planning for collection of information was weak and supervision nonexistent. Reporting, analyzing and disseminating (information) was done as needed rather than planned.[40]

Furthermore, the authors noted that:

> Eighty percent of the units at JRTC had difficulty in passing intelligence information.[41]

Generally, the S2s analyzed the enemy unit dispositions for large maneuver units only (platoon or above). They did not include elements down to squad, mortar positions, SA14 sites, supply points, movement routes and areas of interest. Their focus was clearly on terrain, rather than the enemy.[42] Too often the IPB process became an S2 function rather than an integrated staff effort. The IEWSE was ineffective in many rotations and did not get actively involved with the staff or in the conduct of the battle. REMBASS was either not used or ineffectively used on most of the rotations analyzed. Once the intelligence BOS is analyzed, the maneuver BOS can be considered. The intelligence BOS is designed to support the requirements of the maneuver BOS.

In the maneuver BOS a scheme of maneuver must be developed that includes the plan to conduct counterrecon operations. At the brigade

level, the counterreconnaissance issue deserves some attention. In recent observations, counterrecon at the brigade level seems to be getting better with respect to the integration of combat multipliers such as aviation and engineers. The use of attack helicopters and obstacles to slow enemy recon and advance guards has also had some success. However, the brigade plan for ground maneuver units in the counterrecon battle is still far from being effective. A common brigade level observation made during several recent rotations states:

> The unit had no consistent SOP on counterreconnaissance. Therefore, measures such as patrolling were applied only in situations where enemy reconnaissance efforts posed a threat immediately obvious to the S3 or commander. The result was continuous, accurate enemy knowledge of unit activity and, often, effective targeting of indirect fire, snipers, ambushes, and raids.[43]

Problems at the brigade level have a direct impact on battalion operations. At the battalion level many of the same command and control problems outlined above exist for two reasons. First of all, battalions are influenced by the resources and products provided by the brigade. If brigade staffs have a difficult time producing effective products through the use of the IPB process, battalions are directly affected since they rely upon brigade products for much of their planning data. Secondly, the battalion staffs also have great difficulty effectively planning intelligence operations at their own level. Sixty percent of the battalion commanders polled by Crawford and Hensler felt that the intelligence system needed work. This was the highest rating of any subject in their poll.[44]

The staff planning process at the battalion level showed many of the same weaknesses as the brigade. For example, the entire staff is not actively involved in the planning process. Wargaming was very rarely done effectively, since all staff members were not working together. Since the planning process was weak, time management became a problem in almost

every unit. The result was that subordinate company commanders were not given adequate time to prepare. More importantly, reconnaissance assets could not get out to conduct recon and report in a timely manner. In many cases, no recon information was available to influence the scheme of maneuver in a timely manner.

The synchronization of combat power has been weak. This is especially true of actions on the objective. Many units focused on the movement to the objective and ignored developing detailed plans for actions on the objective. This failure to develop detailed plans for the objective relates directly to the failure of units to conduct detailed reconnaissance of it. Without detailed intelligence of an objective, actions on it cannot be firmly established or rehearsed. This failure to gather intelligence leads directly to the problems experienced in the intelligence BOS. Failures in the staff planning process combined with the failures in the intelligence BOS have a synergistic effect that condemn many missions to failure, even before they begin.

On the positive side of observations, recent after action reports reveal that the inteliigence estimate is becoming more and more a commander's IPB. Commanders are getting much more involved in the process.[45] Although the initial IPB process has shown signs of improvement, IPB is not used well throughout the operation. As discussed earlier, IPB is a continuous process that must extend into all phases of the operation. The unfortunate trend is for S2s to develop the IPB and then walk away from it for the remainder of the operation. Also, units are not considering their entire area of operations and area of interest when conducting IPB. For example, they often ignore rear areas and flanks. Collection planning and management are poor in almost every unit observed. In addition, R&S plans are rarely synchronized with the overall

concept of the operation. Collection plans in turn are not focused on the commander's PIR and in many cases the PIR do not even support the concept of the operation. It appears that staffs do not take the commander's PIR, break them down into indicators, and task the appropriate assets to collect the information. Therefore, organic and task organized assets have no focus for their collection effort and sit idle or report confusing and contradictory information. The problem with reconnaissance at the JRTC can be summarized by a finding in the Crawford and Hensler Study:

> Units are not developing a reconnaissance plan for the battle. An IPB is conducted but often this process excludes the commander and other staff members. Scouts are sent out without a detailed collection plan or work combat tasks rather than reconnaissance tasks. There are too few scouts in the battalion for this to happen. A detailed reconnaissance plan that includes link-up points, checkpoints, fire support targets, and essential tasks from the staff must occur prior to the scouts or any other unit departing on a reconnaissance task. This is not happening in sufficient detail with the right staff involvement.[46]

Since reconnaissance planning is weak, it follows that many missions fail at the JRTC. If they don't fail, they take excessive casualties. Inadequate recon leads directly to maneuver failures. During JRTC, most units conduct four missions. The first mission is the establishment of a lodgement and initial reconnaissance in a low intensity environment. As a second mission, they continue to develop the situation by conducting a search and attack to find and destroy the enemy. As the level of combat increases and a more mobile enemy begins to organize, the battalion conducts a deliberate attack. Once they attack, the level of intensity continues to increase to a mid-intensity scenario where they conduct their final defensive mission. Although every rotation is geared towards specific unit mission essential tasks, these missions seem to be standard for most JRTC rotations. With a better understanding of the JRTC scenario, maneuver problems at the battalion level can be examined.

Maneuver problems begin with the counterrecon mission. Once again,

this problem is directly linked to the recon and staff planning failures outlined above. If recon assets cannot pinpoint enemy recon assets or if the staff planning process cannot provide the required information, counterrecon cannot be effective, no matter how well it's executed. Counterrecon failed to destroy enemy recon forces and didn't protect the friendly force in most rotations. During the search and attack missions, units were not able to mass forces to attack the enemy once they were discovered. This failure led to the piecemeal destruction of the friendly battalion, one squad at a time. These maneuver problems were even further magnified by poor recon operations.

Reconnaissance is not used as the basis for maneuver plans. Plans are developed and executed regardless of the intelligence picture that is developed, (if one is developed). As plans are developed they are not synchronized with the recon plan. The failure to synchronize these actions shows weaknesses in tactical planning, troop leading procedures and orders preparation at the battalion level. Crawford and Hensler make some extraordinary findings on this topic:

> Sixty percent of the units at battalion and company level had significant difficulty in planning tactical operations.[47]
> Two-thirds of the units had difficulty preparing and issuing orders.[48]
> Eighty percent of the units experience some difficulty with troop leading procedures.[49]

These problems are still cited in the majority of take home packages today.

The only maneuver unit strictly devoted to recon in the battalion is the scout platoon. Scout platoons can complete an assigned mission if they are given a realistic mission. Scouts, however, are generally overburdened with tasks and not given adequate time to conduct information gathering.[50] This leads to platoons that do not use stealth because of a lack of time. In turn they conduct poor information gathering because

they have been assigned too many tasks. The timing of the insertion of battalion scouts has also been a problem. Because units want to get "eyes" on the objective, they send scouts out without operations plans, intelligence gathering plans and fire support plans.[51] Obviously, a balance must be sought between sending them out too early and getting required information in time to complete the plan.

The inability of scouts to conduct mounted recon causes battalions to use TOW platoons to conduct route recons. In 75 percent of the rotations analyzed, TOW vehicles were destroyed conducting this route recon. This destruction insured the battalion had limited or no TOW capability for use against vehicle targets or for follow-on missions.

The battalions appear to be unable to mass effective combat power at the proper time and place. This has a great deal to do with reconnaissance reports, but it also deals with forces available. In the defense, one unit conducted a superb counterrecon fight by placing a rifle company and an aviation task force out to conduct the counterrecon mission. The only problem was that the unit had only two companies to defend with and was quickly defeated.[52] Other units that conducted the same mission conducted little counterrecon and defended with three companies, only to be defeated due to superb enemy knowledge of their positions.[53]

In summary, the JRTC has provided recent observations on the subjects of recon, counterrecon and the IPB process. These observations have shown that there is room for improvement in these areas for our light infantry forces. In light of these observations and the requirements developed in Section III, the next section provides an in-depth look at some of the reasons why the performance of contemporary US light infantry has not lived up to those requirements.

VI. Contemporary Recon, Counterrecon and the IPB Process

Light infantry units have failed to conduct adequate recon, employ sufficient counterrecon forces and properly use the IPB process in the conduct of operations at the JRTC. Although there are exceptions, these problems have existed since the Crawford and Hensler study of units at JRTC from 1987 to 1989 and continue to be weaknesses described in unit take home packages in 1991. Solutions to these problems require an in-depth look at the differences between doctrinal requirements and unit performance results. Using the criteria developed earlier, this analysis will initially focus on recon, then counterrecon and finally the IPB process.

In order to collect information for successfully planning operations, a collection plan that focuses intelligence gathering assets on the commander's PIR and other intelligence requirements must be developed. As shown above, staffs at both the brigade and battalion level need improvement in this area. This inability to build coherent collection plans leads to a system with no flexibility and one that is incapable of responding in a timely manner to orders. This inflexibility at the brigade level is further emphasized by the inability to use all available recon assets effectively, i.e., REMBASS, aviation support, or engineer support. Also, none of these assets are organic to the brigade itself. Tasking battalions to conduct reconnaissance is rarely effective because there is a time lag between issuing orders to the battalion and getting the information back to brigade.

The brigade commander has very little flexibility in his ability to get "eyes" on an objective. He has access to systems that can provide communications intercept, noncommunications intercept, information concerning movement along routes and many other nonvisual means, but he

lacks the means to conduct direct visual R&S. The solution at the JRTC seems to be the integration of Special Forces (SF) A Teams into the scenario, using them as a recon asset or task organizing division long range surveillance detachment (LRSD) teams to the brigade. Neither of these options are effective long term solutions. SF A Teams may be seen operating in an area as a brigade establishes a lodgement and may provide limited information to them. The idea of an A Team being under brigade control is not how the special operations community plans to do business. As strategic or operational assets, A Teams will not be used at the brigade level. In addition, LRSD teams generally will not work for the brigade commander. At JRTC they work for the brigade because the division headquarters does not participate. In actual conduct of operations, LRSD teams will conduct surveillance as directed by the division commander. The key word here is surveillance. LRSD teams are trained to conduct surveillance, not active reconnaissance that requires a detailed understanding of the brigade commander's concept of the operation.

The brigade commander's current recon system <u>is not</u> flexible and does not react in a timely manner to orders. Since it is incapable of conducting timely reconnaissance, its accuracy is affected. Either detailed recon is not accomplished due to a lack of time or the information is accurate but too late to be useful to the commander. Finally, the brigade commander cannot conduct continuous recon operations. Except for the IEW company, almost all the assets assigned to him have recon as a secondary mission, i.e., engineers, aviation, and fire support assets. He is tied to the information provided by the division headquarters or to the recon conducted within his battalions. In many cases, recon plans within the battalions may not support the brigade commander's collection plan.

The recon effort in the battalion does not look much better. Recent experience has shown the battalion staffs as incapable of producing synchronized reconnaissance efforts. Their collection plans are also weak and do not focus on the commander's PIR. This collection effort is hampered by a scout platoon that is overburdened. (See Appendix D for a summary of scout missions). The problem of overburdening the scout platoon leads to two diverging questions: Is the scout platoon assigned too many missions or is the scout platoon too small to accomplish its doctrinally assigned missions? The answer lies somewhere in between. Staffs need to consider the limited capability of the scouts and the scout platoon may be too small to conduct all of its assigned missions. The scout platoon is quite often used to focus on intelligence requirements passed down from brigade, because the brigade cannot conduct them. In turn, the battalion commander has even less flexibility to conduct his own required recon. To fill this recon void the battalion commander usually uses infantry platoons.

Once a commander begins to pull infantry platoons to conduct his recon plan, he begins to reduce his combat power. Infantry platoons should be used to conduct local security operations and can be used to supplement the scouts as required. Every time this is done, one less platoon is available to fight the battle. Scouts also require special training. As such, rifle platoons cannot be equally assigned a scouting mission. (See Appendix D for some special training requirements for scouts).

The battalion commander's only dedicated recon asset is currently not very flexible. It is too small to conduct all the missions assigned, it lacks any organic transportation assets and it has limited communications capability.[54] Battalion staffs have found it difficult to assign missions early enough to insure the scouts have adequate time to recon

objectives. Therefore, recon within the battalion has not been timely and has not provided the accuracy needed to conduct detailed planning operations. Finally, with limited assets, the scout platoon in the battalion cannot conduct continuous operations.

Recon efforts are also hampered by a lack of developing technology in the scout platoon and within the battalion. In a 1985 study of the light infantry battalion, many of the shortfalls found in the structure were to be filled by technological advances. As of today, the infantry battalion has not seen this explosion of technology. Although some changes have been made, the equipment is generally unchanged from that which was available in the early 1980s. There have been no great strides forward in such areas as alternate modes of transportation, sophisticated communications capability, or in observation devices.[55] (The one exception is the recent development and early fielding of the Global Positioning Devices used in Operation Desert Storm.)

Counterrecon operations have been conducted in an equally poor manner and the doctrinal basis for counterrecon is very weak. Brigades cannot respond to enemy threats because they have not developed standard operating procedures on how to conduct counterrecon. They are not able to defeat enemy recon capability because their recon effort cannot locate the enemy recon assets. Once again, the brigade commander lacks organic recon capability to focus on finding the enemy recon assets.

The battalion level is where most of the counterrecon battle must be fought. Currently, the battalion has marginal capability to respond to enemy recon threat and limited assets to defeat enemy recon elements. JRTC reports clearly show that battalions are having a difficult time identifying an enemy recon effort. Once identified, they have very few assets to commit against it. If they commit a rifle company to

counterrecon, fully one-third of the battalion's combat power will not be engaged in the main fight. Designing operations that hope this counterrecon force is still combat effective or designing ad hoc organizations to conduct counterrecon operations will not work. A battalion commander must have adequate assets under his control to ensure he can defeat the enemy recon assets and then defeat the enemy main force. This counterrecon effort is tied directly to the ability of units to conduct the recon mission which is directly linked to the R&S plan that is driven by the IPB process.

Both brigade and battalion staffs have shown an inability to conduct an integrated staff planning process. If a detailed IPB process is done initially, it is not continued throughout the entire operation. Currently, staffs do not integrate the commander's PIR properly and commanders generally do not provide sufficient guidance to assist the staffs in this development. The most critical error staffs at both levels make is in the integration of recon and counterrecon into the IPB process. Many staffs believe that the event template drives the recon effort. This is a true statement, but it is not the only time recon assets must be focused to gather intelligence. Recon assets should be sent forward with detailed recon plans as soon as possible during the planning process. Waiting to conduct reconnaissance until an event template is designed leaves very little time to conduct meaningful recon efforts. Staffs need to focus on the recon effort as soon as possible. Although the troop leading procedures explain this very well, staffs generally do not think of troop leading procedures when conducting the staff planning process. Once recon and counterrecon get integrated into the total staff planning process and the IPB process, this problem can be solved.

Several doctrinal disconnects exist in IPB publications. Most IPB publications focus on the employment of mechanized and heavy forces in a European type scenario. The IPB process used for missions involving light forces is much different and much more detailed. For instance, avenues of approach for light forces are much more numerous and more difficult to identify than for heavy forces. After Operation Just Cause, lessons learned published by the Center for Army Lessons Learned (CALL) commented:

> The IPB process is sound. LIC (low intensity conflict) operations require the consideration of more factors than the traditional enemy, terrain and weather. The civilian population, logistics sustainability, critical economic and resource areas are important nontraditional factors."[56]

There is also a misunderstanding of the capability of light forces within the IPB doctrine. As alluded to earlier, FM 34-2-1 states that scout platoons operate 500-1000 meters from the battalion. If that is true, they can neither conduct recon or be part of the counterrecon effort. Light infantry scout platoons can operate almost any supportable distance from the battalion. It might be 2-8 kilometers as expressed by FM 7-72, or it might be as far as 20-30 kilometers or more if units conduct air assault operations.

Doctrinal disconnects, organizational shortfalls, training problems and equipment deficiencies cause recon, counterrecon and the IPB process to be identifiable weaknesses in most light infantry units today. In the future, even more demands will be placed on this already fragile system. In the next section this monograph will look at the future tactical intelligence requirements of Airland Operations.

VII. Airland Operations and the Future Prospects for Intelligence Gathering Requirements

Before considering some improvements to the weaknesses cited above,

the potential influence of Airland Operations on operations at the brigade and battalion level must be considered. Airland Operations (ALO) is the Army's umbrella concept for the evolution of Airland Battle for the strategic Army of the 1990s and beyond.[57] The infantry brigade will be required to rapidly deploy independently as a division ready brigade or deploy as part of a division. It must be able to conduct operations across the operational continuum. The brigade may also be required to conduct heavy/light or light/heavy operations in many diverse environments. It will play a key role in the operational cycle and will conduct operations in support of the four stages of the operational cycle.[58] The infantry brigade and battalion must be prepared to operate within this operational cycle.

Maneuver warfare theory is one of the guiding principles of Airland Operations.[59] In his book Maneuver Warfare Handbook, William S. Lind describes the concept of surfaces and gaps as one of the key concepts that influence tactics in maneuver warfare. He describes tactics as avoiding surfaces (enemy strong points) and attacking gaps (enemy weak points).[60] These same basic tactics were used successfully by the German General Oscar von Hutier during WWI. He had tremendous tactical success on the eastern front in 1917 and on the western front in 1918. Known as "Hutier Tactics", his units' ability to bypass strongpoints and attack weak spots "came close to winning the war for Germany."[61]

To conduct these types of operations will require a brigade level combined arms force to attack more often, usually using the indirect approach. This requires the employment of a fixing force to engage the enemy strength and a maneuver force to drive through enemy weaknesses. It will also require a recon system similar to what Lind describes as "recon pull."[62] Utilizing recon pull places organic forces forward of the main

body to conduct recon, find the gaps in the enemy dispositions and then "pull" the main force forward through the identified gaps. The Marine Corps has adopted recon pull as a doctrinal term and technique.[63] Recon pull will require commanders to have extensive organic recon assets to identify the surfaces and find the gaps required to conduct effective maneuver warfare.

Although it may seem that these operations are designed for mechanized forces, the Infantry White Paper prepared on Airland Operations sees the unifying factor among all types of infantry brigades in the future as the doctrine by which they fight. So this doctrine is quite applicable to light forces as well.[64] The White Paper holds that in both the attack and the defense, the brigade commander will be responsible for conducting the extended close combat battle (ECC). The ECC fight is the non-line-of-sight part of the close battle, fought by the brigade with long range fires, intelligence and communications capabilities. The purpose of ECC is to set the conditions for and reinforce the close combat fight by destroying or neutralizing the enemy's capabilities before they can influence the close fight.[65] The range of ECC will occur out to roughly 30 kilometers. This concept is important because it will influence intelligence planning at the brigade level. The brigade commander is going to be required to visualize the battlefield up to 30 km out and determine where the enemy gaps are located. Without increased reconnaissance capability he cannot fulfill this mission.

Battalion level units will fight the close battle. For a battalion to be tactically mobile, it must have adequate reconnaissance assets to maintain its flexibility. The key difference in ALO will be the speed at which all of this must occur. The greater the speed required for a unit to move, the greater its recon capability must be. The battalion scouts

will continue to be the keystone to the recon effort.[66] Airland Operations will challenge the staff to integrate many sources of information rapidly and issue orders in a timely manner. ALO will not radically change operations within the light infantry battalion, except for an ever increasing requirement to provide timely and accurate intelligence information to units so they can strike a decisive blow to the enemy through known gaps.

ALO will require units to be spread out. While friendly forces are greatly dispersed, they must be protected. Force protection will be a critical aspect of ALO, especially in light of shrinking force structure. Counterreconnaissance, as part of force protection will become even more important. The future requirements discussed below consider these basic ALO characteristics when recommending changes to the way our light infantry conducts recon, counterrecon and the IPB process.

VIII. Intelligence Gathering Requirements for the Infantry Brigade

In light of the information presented throughout this paper, it is clear that improvements are needed in current recon, counterrecon and the IPB process. The following recommendations consider historical background, current shortfalls and possible future requirements to arrive at an improved system to conduct these operations. These recommendations will not determine the "billpayer" when force structure changes are recommended. In a time of decreasing military forces, units must be designed and manned to provide the optimum combat capability. This capability should not be limited by personnel slots or sortie caps; instead, the force should be structured to fight battles and win.[67] These recommendations will also not focus on increased training solutions. JRTC take home packages make home station training recommendations for every weakness they identify, so training information

is available in the field. The recommendations will be made for recon first, followed by counterrecon and finally the IPB process.

Reconnaissance at the brigade level would be greatly enhanced by the addition of a recon company. In this way, the brigade commander would have his own organic recon asset to gather intelligence in accordance with the commander's PIR. This also frees battalion recon assets to conduct recon of their own area to meet the battalion commander's PIR. Although a company is recommended, an alternative is to place a company headquarters and one platoon at brigade level and task organize other recon or maneuver assets to it as dictated by METT-T. This unit would also be responsible for the emplacement of REMBASS or similar unattended sensors. It also gives the brigade commander an asset to use to conduct Battle Damage Assessment (BDA). Current doctrine does not even consider this use, mainly because assets are not available to do it. This company must be more mobile than the rest of the brigade. As such, it must have organic transportation to be used when needed. Motorcycles, HMMWVs or other light vehicles would be ideal. The 1989 Reconnaissance, Surveillance and Counterreconnaissance Special Study Group noted that there was a valid requirement for a heavy and light brigade recon capability.[68]

The US Marine Corps has a ground recon battalion organized at the division level. It has four recon companies that can employ a total of 48 4 man recon teams. One recon company habitually supports an infantry regiment with 12 teams, leaving one company at the division level.[69] Following Desert Storm, th Marines intend to reorganize these recon assets and assign a recon company permanently to each regiment.[70] This will provide the Marine regimental commander with 12 ground recon teams to employ in support of his recon operations. Although a marine regiment has several unique capabilities, its basic ground missions are the same as the

missions assigned to an infantry brigade.

The battalion scout platoon needs to be enlarged. It currently can man three teams and a platoon headquarters. [71] This platoon needs to have at least six teams to effectively meet the demands placed upon it. The same 1989 Recon, Surveillance, Counterrecon Study noted that:

> The Close Combat (light) Mission Area Analysis and field input indicate the current LID battalion scout platoon is too small and lacks the mobility to properly perform its mission. [72]

By increasing its size, it can accomplish more recon than before and valuable maneuver assets, such as TOWs, can be used for antitank capability rather than route recon. Scouts also need organic transportation so they can move quickly by vehicle when the situation permits. Once again motorcycles, HMMWVs or another light vehicle would meet the requirement. This would raise the total personnel assigned to the battalion scout platoon to approximately forty.

Many assets can be task organized to the scout elements as required. Engineers, air defense and other assets can be added according to the mission assigned to the scout platoon. All missions require fire support. Scouts should be trained to call for and adjust fire as a key individual task. The difficulty arises when all the data on the fire support net becomes digitized. The lightweight TACFIRE system will send all information on digital message devices. The scouts will either need to have this organic capability or a FIST will be required to be assigned to the scouts just as they are now assigned to rifle platoons. The recon company at brigade will need to have FISTs assigned to them. Fire support is absolutely critical to recon operations. Scouts should not engage in close combat. When they do get into situations when they need to disengage from the enemy, fire support will be their primary means to do

so. Also, scouts will very often be in position to call indirect fires on enemy units when conducting operations as part of a counterrecon battle or as part of a security action for the main attack.

Equipment improvements in both these units would add tremendous capability to the accomplishment of their missions. Equipment such as improved HF radios or tactical satellite equipment would improve their communications ability. Additions of a minefield reconnaissance capability and improved daylight and night vision devices would greatly improve the scouts flexibility and ability to report information in a timely manner. Thermal imagery devices have proved invaluable in conducting night operations. Scouts should have this capability through the use of the AN/PAS-7 or similar devices.

The greatest addition to the brigade reconnaissance capability can come through the addition of the close range unmanned aerial vehicle (CRUAV). The UAV has been used by the Israeli Army for many years, they are organized in marine corps units today, and they have been tested in some Army units. The earliest possible date for fielding of the CRUAV in the Army is now 1994-1997.[73] This capability will greatly enhance the recon and BDA capability of the brigade. (See Appendix E for additional information on CRUAV capabilities). The CRUAVs can be organized at division level in the military intelligence battalion, but the control of the UAV and the data downlink must be at the brigade headquarters. Intelligence teams must be in direct support or attached to the brigade to provide this capability. There is no reason that the downlink for the UAV cannot be compatible with other intelligence gathering assets such as the Joint Surveillance Target Attack Radar System (JSTARS), to allow the brigade commander immediate access to real-time intelligence gathering assets.

The helicopter is also a key recon asset. In order to make them more useful, pilots must be knowledgable of the commander's PIR. As they conduct air assault operations or attack operations, they can provide a wealth of knowledge to the commander. The AH-64 Apache has the capability to video tape what it sees. There is no reason the UH-60 Blackhawk and other assets cannot be configured to provide the same kind of information. A video camera on the wing store of an external stores sub-system (ESSS) would provide superb information to a commander.

As the commander gathers intelligence, he needs assets to move forward and conduct combat operations against the enemy recon elements. The scout element is not the proper unit to conduct this counterrecon operation. As shown earlier, the light infantry battalion is extremely limited in maneuver forces. FM 7-20 has attempted to show some ad hoc ways of resolving this problem, but provides no good doctrinal solution. The only doctrinal solution is to change the organization of an infantry battalion. Most infantry battalions throughout modern history have either had four or five companies. It is time to come to the realization that a battalion is much more flexible with four maneuver companies and a support company than with three maneuver companies and several separate platoons assigned to a headquarters company. (See Appendix F for a comparison of the structures). As long as infantry battalions continue to possess only three companies, counterrecon will continue to be a difficult operation. During the Vietnam war, all infantry battalions changed from three to four rifle company battalions. In Sharpening the Combat Edge: The Use of Analysis to Reinforce Military Judgement, LTG Julian Ewell and MG Ira Hunt, Jr. make the following observation:

> Having been exposed to the full effect of triangular battalions for some months in Vietnam, we will limit ourselves to saying that it is a

miserable organization for semi-guerilla operations. . . . gained about 33% in rifle strength and somewhat more than that in flexibility and staying power.[74]

Their observations address the flexibility issue in counterrecon. One of the criteria addressed in this monograph has been the unit's ability to react to enemy threats or "flexibility."

A recent article in Military Review reinforced the flexibility issue while discussing the organization of mechanized battalions. LTC Richard Stouder emphasized that during TRADOC analysis, four-company battalions were much more flexible than three-company battalions. Clearly, four companies give the commander much more flexibility in providing a counterrecon force, weighting the main effort or establishing a reserve.[75] Three-company battalions give no such flexibility.

While looking at the structure of a battalion, one other issue comes to the surface. The scout platoon is currently organized under the headquarters company. The headquarters company is not prepared to support the scout platoon. In most JRTC take home packages the scouts run out of food and ammunition and are not adequately supported logistically. In reality, their most experienced scout, the platoon sergeant, becomes a supply sergeant because no one else can do it. This is a totally unacceptable situation. Even though the scouts get their missions from the S2 or S3, the staff cannot support the platoon. They need a separate headquarters to fall under. This need requires the creation of a support company. This company would consist of the scout platoon, the mortar platoon, the sniper squad, and a number of antitank platoons.[76]

Snipers are a key ingredient to fighting any counterrecon battle. Although Army leaders are not well-trained in sniper employment and they are not used well at the CTCs (no MILES equipment for the M24), they are a critical asset to the battalion. "Double-hatting" scouts as snipers is not

the answer to employing scouts or snipers. Snipers need to be assigned duty positions and trained as snipers. Ewell & Hunt called their sniper program the "most effective" program they had in combat operations.[77] The snipers assigned to the support company would be task organized to rifle companies as required. Six sniper teams (12 soldiers) would be the ideal structure. Ewell and Hunt also notice that when they brought their snipers under the battalion commander's control (as opposed to under rifle company control), the results "skyrocketed."[78]

This counterrecon mission can only be successful with an effective recon effort. The beginning of a good recon capability comes with an aggressive and detailed collection plan. As described earlier, battalions are currently unable to bring together all aspects of this intelligence collection plan. The CTCs have clearly demonstrated that a staff and its commander must develop an effective planning process. That can only be done through detailed practice and operating together. Battalion level staffs need to treat everything they do as a total staff process. Every mission planned in peacetime must include the entire staff plus attachments. The increased use of the parallel planning process at both battalion and brigade level will also save time and help units get recon and counterrecon operations started earlier. The use of simulations can greatly enhance this capability. ARTBASS, BBS, JANUS or other simulations can help staffs conduct planning and execution rehearsal at a relatively low cost. These types of exercises should be conducted at least semi-annually.

The IPB process is a time tested process that produces excellent results when properly used. There are two changes to our current method of integrating the IPB process with the staff planning process and troop leading procedures that deserve some attention. The term IPB itself is a

good name for what occurs in the process through the construction of the situational template. The S2 is the key player in the first four steps of the IPB process and in the development of the situational template during the fifth step. The intelligence staff can do most of this work with input from other staff members. The rest of the process cannot be accomplished without the remainder of the staff and the commander. It is no longer a process lead by the S2. The S3 and the commander become the key players during the wargaming process. The event template "is developed by wargaming each potential enemy course of action from the point where friendly or enemy activity begins to the final objective."[79] The development of the DST is the effort of " . . . the commander's triad. . . . However, to be complete and effective, the DST must be developed as a result of a total staff effort."[80] FM 34-130 left the commander out of this process, but he must be involved. It is no longer "intelligence" preparation of the battlefield. It is now the "commander's" preparation of the battlefield (CPB). With this realization, staffs and commanders can stop relying upon the S2 to "do the IPB."

The second process that needs to be emphasized is the actual conduct of reconnaissance. Staffs must realize that they must conduct reconnaissance planning early and get their scouts out early. Planning is not just identification of an area to go to, but includes detailed mission assignments, fire planning, and contingency planning. This recon can help the S2 determine terrain and weather effects on any possible course of action. It also will assist the S2 in developing the situational template. Once the event template is finalized, recon assets can be given fragmentary orders to adjust previous instructions or brought back in and issued new orders. They need adequate time to conduct recon and report back to the staff. The staff then needs adequate time to confirm the plan

or to change the plan as required. The staff and commander also need to insure they conduct personal recon to observe the battlefield as often as they can.

Obviously, great improvements can be made in the IPB process by training and experience. As staffs work together, as S2s and S3s become more experienced, and as commanders become involved in the process, IPB and CPB will become even more valuable processes. Improving the IPB/CPB process, providing additional recon assets, and developing solid counterrecon doctrine will improve the capabilities of the infantry battalion and make it even more capable to conduct combat operations in the future.

IX. Conclusions

This monograph has covered a great deal of ground since the introduction of the research question. It is important to remember that the central theme was to develop the recon and counterrecon requirements needed to conduct the IPB process effectively in a light infantry brigade. In doing so, it presented the doctrinal definitions and requirements, reviewed historical perspectives, highlighted JRTC observations and looked at contemporary recon, counterrecon and the IPB process.

In section II, several criteria were developed for each subject and these criteria were used throughout the paper to examine historical passages and contemporary issues. The first criterion applied to recon was flexibility. Clearly, with the addition of extensive recon assets organic to the brigade, the commander has much more flexibility. Not only does he have additional recon assets, but now maneuver assets will not be used as often in this role, preserving their combat power for the close fight. With the adoption of the above proposals the brigade commander now

owns his own recon assets. They have mobility, they can react quickly to his orders and they can provide timely information. Also, with the division of effort between the brigade and battalion scouts, each command level focuses on its battle; the battalion commander on the close fight and the brigade commander on the extended close combat fight. Accuracy in reporting will get much better if scouts now have enough time to concentrate on their mission. With the addition of extensive lightweight communications gear and observation devices, accuracy will be even better. This structure provides some redundant capability and an opportunity to rest these valuable recon assets as needed. Scouts will be able to conduct continuous recon operations across the brigade.

UAVs provide ability across all four criteria. They provide flexibility by providing a wide range of times to be used and an ability to move quickly where and when needed. They are extremely timely, because they can launch at the commander's request. They provide accurate intelligence gathering capability and BDA. They also can fly continuous operations. This provides a great improvement over any system previously available.

With the addition of a rifle company, the battalion is now capable of responding to enemy threats and defeating the enemy recon, while still retaining adequate combat power to fight the enemy. The creation of a support company will focus all the combat support type operations under one company commander, whose only job is to provide resources for those platoons.

The cornerstone of any improvement in recon or counterrecon is the IPB process. The key here is training of the staff and the commander. Through training they will learn how to integrate the commander's PIR and guidance into a collection plan that focuses assets at the proper time and place.

This process can be helped by making a doctrinal adjustment that labels IPB as "intelligence" preparation and everything after the situational template as the commander's preparation of the battlefield (CPB). By focusing on the recon effort early in the process and getting recon out, the staff can better answer the questions it needs to produce effective orders. The IPB process must be a continuous process. Starting recon once an event template is completed is too late.

Recon, counterrecon and the IPB process are three missions that must be conducted better than the enemy's efforts in order to win in combat. All three are linked to each other and cannot be separated without grave consequences to the unit. The synergistic effect of recon, counterrecon and IPB will lead a brigade to victory, for just as Sun Tzu said, "If I am able to determine the enemy's dispositions while at the same time I conceal my own then I can concentrate and he must divide. . . . " Often called the battle before the battle, planning for recon and counterrecon efforts must receive the same priority as planning for the main effort. Making these recommended changes will not guarantee victory, but they will set a much better prospect for victory on the battlefield. As the size of the Army's forces decline and responsibilities across the world increase, brigades will be committed to ever more unclear situations where recon, counterrecon and the IPB process will provide the information needed to guide units to victory.

Appendix A: Glossary of Terms

1. Counterreconnaissance - All measures taken to prevent hostile observation of a force area or place.[81]

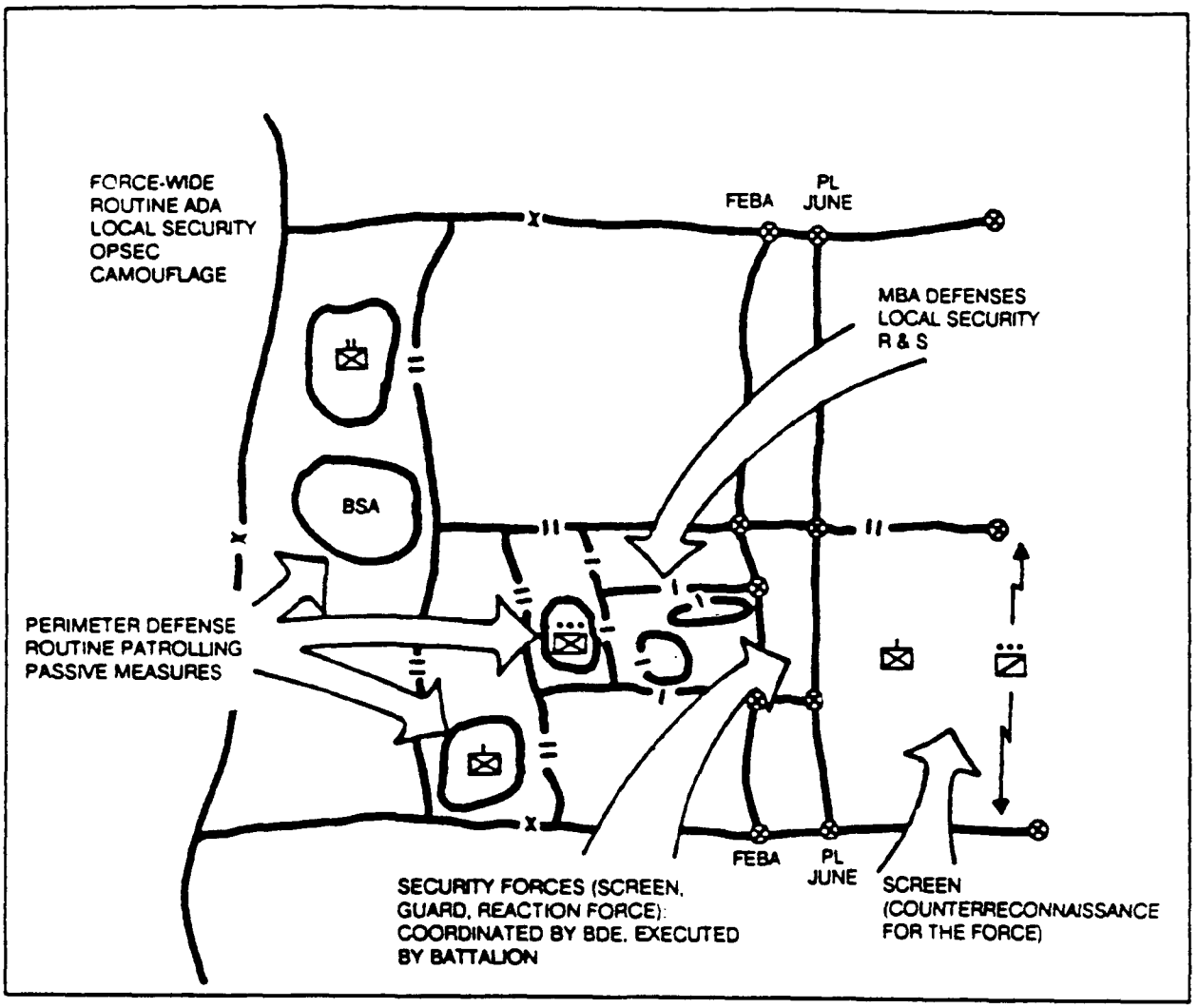
2. Intelligence Preparation of the Battlefield (IPB) - a systematic approach to analyzing the enemy, weather and terrain in a specific geographic area. It integrates enemy doctrine with the weather and terrain as they relate to the mission and the specific battlefield environment. This is done to determine and evaluate enemy capabilities, vulnerabilities, and probable courses of action.[82]

3. Reconnaissance - a mission undertaken to obtain information by visual observation, or other detection methods, about the activities and resources of an enemy or potential enemy, or about the meteorological, hydrographic, or geographic characteristics of a particular area.[83]

4. Surveillance - A systematic observation of airspace or surface areas by visual, aural, electronic, photographic or other means.[84]

Appendix B: Counterreconnaissance Considerations

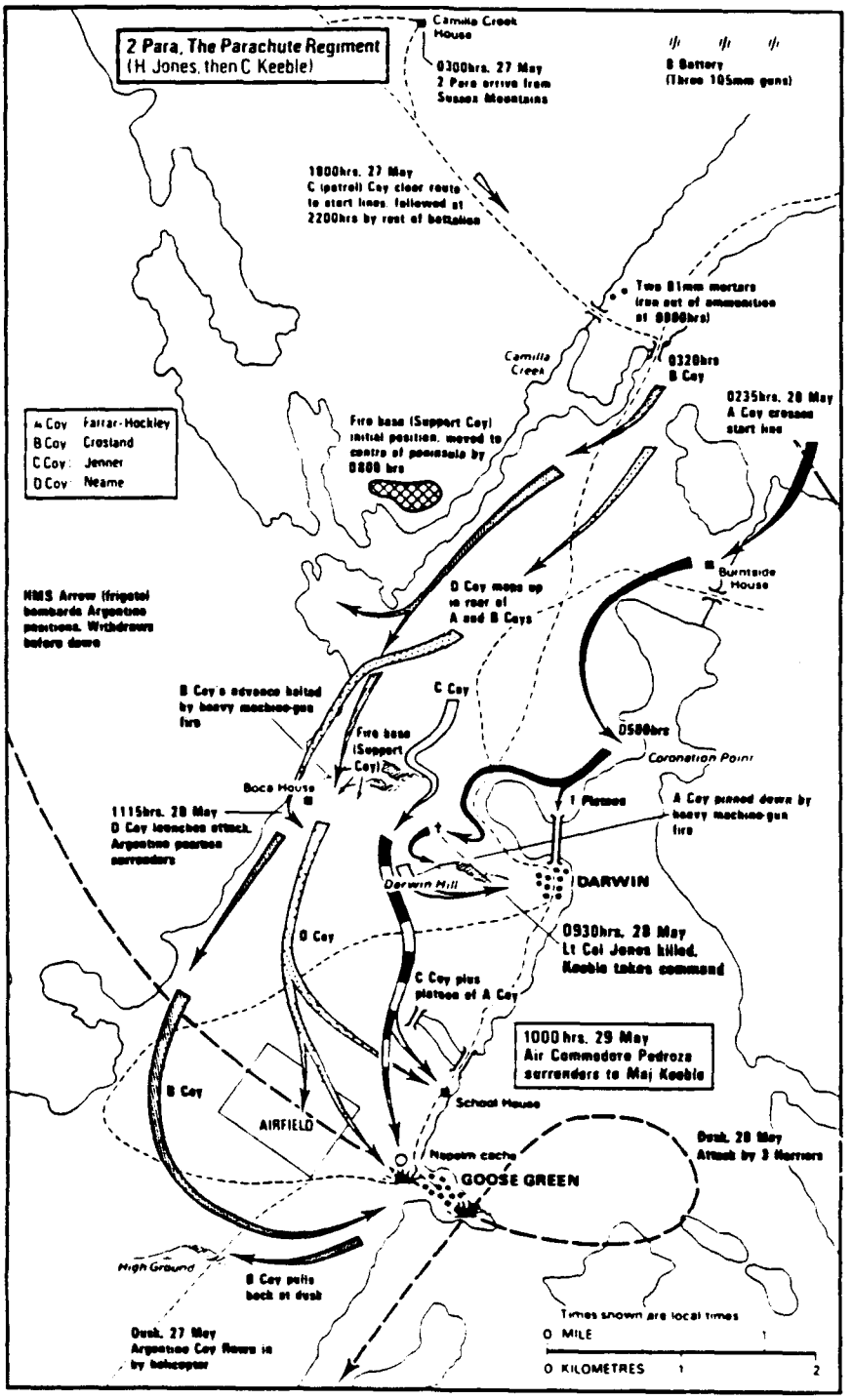
From FM 7-20, The Infantry Battalion, Draft, (Undated): 4-19.



Counterreconnaissance considerations.

Appendix C: Map of Goose Green

Max Hastings and Simon Jenkins, The Battle for the Falklands (New York: W.W. Norton & Co, 1983), 234.



The Battle for Goose Green

Appendix D: The Scout Platoon

The scout platoon's mission is to perform reconnaissance and surveillance, provide limited security and assist in controlling movement of the battalion or its elements. Scout platoon missions include:[85]

Conduct reconnaissance
- Zone
- Area
- Route

Conduct Security Operations
- Screening mission
- Guard mission

Establish liaison, contact and quartering parties
Conduct counterreconnaissance
Establish forward observation posts
Perform forward observer missions
Help control movement
Conduct limited pioneer and demolition work, conduct patrols and establish roadblocks
Conduct NBC recon
Conduct sniper operations

Scouts must have specialized training to successfully accomplish the tasks assigned to them. This is a difficult process that includes individual through platoon collective training. In a 1989 article in Military Review, LTC(P) James McDonough made the following comment when discussing training in the battalion task force:

"Scouts must know how to scout, each soldier by himself, as well as sections, squads and the entire platoon in support of the battalion."[86]

Some of the specialized skills required of scouts include:

Battlefield movement; navigation and range estimation; marksmanship; observation and listening techniques; identification of enemy positions, equipment and activities; identification of indicators; interpretation of observations; track following; lost track procedures; anti-tracking procedures; stalking techniques. They must be hard nosed and carefully chosen.[87]

Appendix E: The Close Range UAV

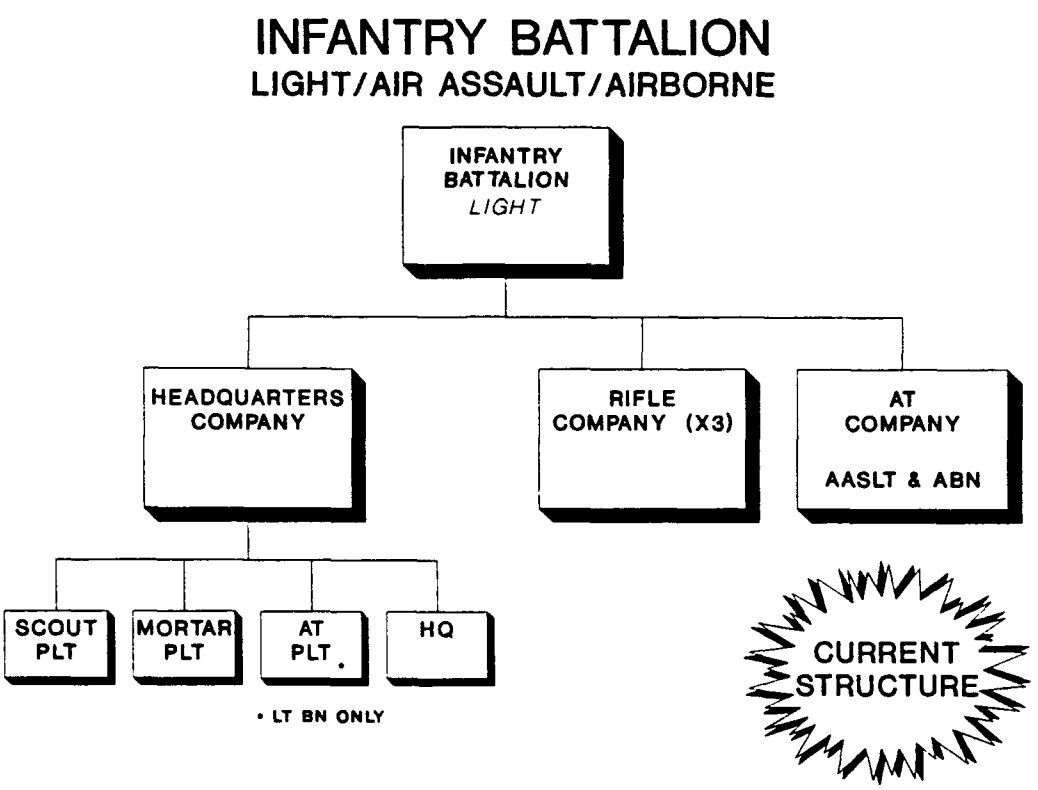
The draft operational and organizational (O&O) plan for the Army's Close Range UAV was developed in June 1987. The CRUAV was then described as the UAV-Maneuver (UAV-M). The plan describes the UAV-M in the following manner:

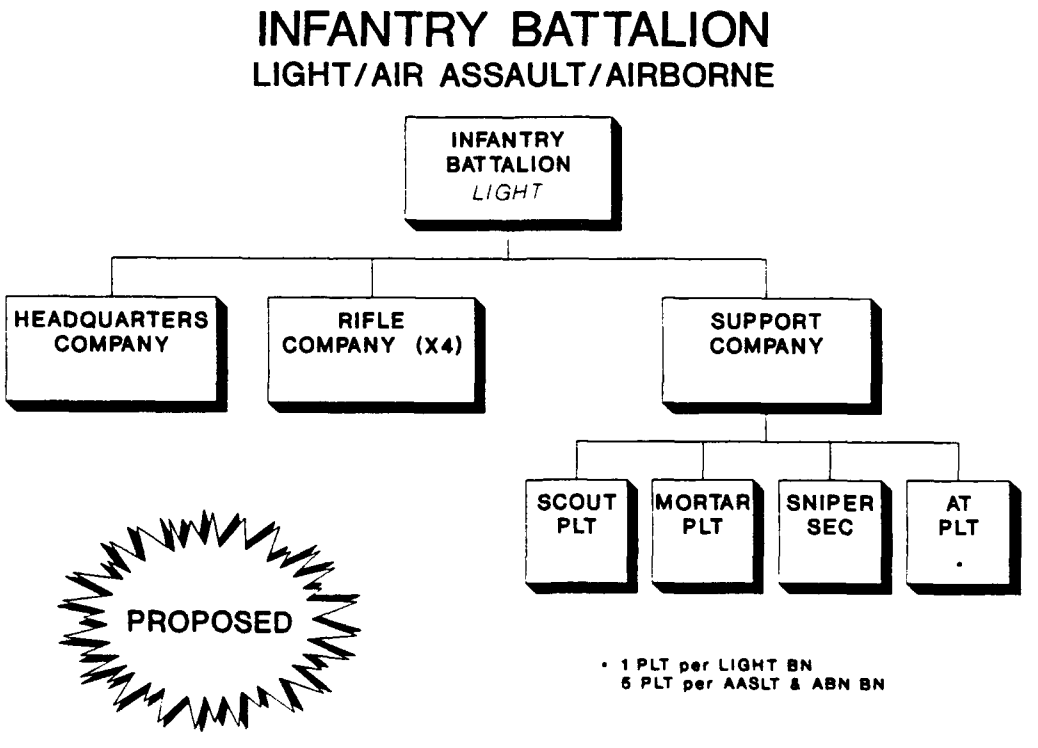
"The Unmanned Aerial Vehicle - Maneuver (UAV-M) is a simple, deployable, short range brigade and task force reconnaissance and surveillance system operated by personnel from the Combat Electronic Warfare Intelligence (CEWI) Battalion. The system will be capable of day or night operations. The UAV-M provides near real time imagery on a video monitor with coordinate locations."[88]

In this O&O plan it is clear that UAVs will fill a void in the brigade and battalion commander's ability to see the battlefield. Airland Operations will make this need even more critical. In a recent article for Military Review, Miles A. Libbey and Patrick A. Putignano discuss the critical role that UAVs will play on the nonlinear battlefield. They conclude that doctrine for the nonlinear battlefield may be the first ground and air doctrine to demand the unmanned system be used to its maximum potential.[89]

The Marine Corps has a had a CRUAV capability for several years. Since there is no current US Army doctrine on the missions for UAVs, an article in the Marine Corps Gazette may provide some near term answers. Lawrence G. Karch and James R. McGrath, Ph.D., provide a summary of missions to be assigned close range UAVs in support of battalion and company operations. In their article, seven mission categories are identified: (1) reconnaissance and surveillance, (2) maneuver support, (3) intelligence support, (4) scouting and patrolling, (5) fire support, (6) vehicular convoy support , and (7) special applications.[90]

Appendix F: Current and Proposed Light Infantry Battalion Structures





Endnotes

[1]Samuel B. Griffith, Sun Tzu The Art of War, (Oxford: Oxford University Press, 1971), 98.

[2]U.S. Army, FM 34-130, Intelligence Preparation of the Battlefield (Washington: Department of the Army, 1989), 1-1.

[3]FM 34-130 (1989), 3-1.

[4]Mark R. Hamilton, "IPB or IPC," Military Intelligence 16 (April-June 1990): 24.

[5]U.S. Army, FM 34-2-1, Tactics, Techniques and Procedures for Reconnaissance and Surveillance and Intelligence Support to Counterreconnaissance (Washington: Department of the Army, 1991), 2-9 and 2-11.

Command Echelon	Hours	Kilometers Front	Kilometer Flank
Battalion	up to 12	up to 15	3-6
Brigade	up to 24	up to 30	6-10

These doctrinal distances reflect the heavy force bias ever present in FM 34-2-1. It is assumed that light forces will be approximately the same except when conducting operations as part of deep or extended close combat operations.

[6]FM 34-2-1 (1991), 2-20.

[7]U.S. Army, "FM 7-30, The Infantry Brigade", Final Draft (Washington: Department of the Army, 1990), 2-34. It is the reference for this comment.

FM 34-2-1 (1991), 1-41. It explains the difference between collection planning and R&S planning. At brigade level and lower collection planning is called R&S planning because they actually task specific assets to conduct collection.

[8]Martin Goldsmith and James Hodges, Applying the National Training Center Experience: Tactical Reconnaissance (Santa Monica, CA: RAND Corporation, 1987), 12.

[9]Goldsmith and Hodges, 67.

[10]The Infantry Journal Incorporated, Infantry in Battle (Washington: The Infantry Journal Incorporated, 1939), 324.

[11]U.S. Army, FM 7-72, Light Infantry Battalion (Washington: Department of the Army, 1987), 1-9.

Endnotes

[12]FM 34-2-1 (1991), 7-4. Airborne and air assault units also have the limited capability to have a PPS-5 which has a range of 6000 meters for personnel and 10000 meters for vehicles. Instead of having 12 PPS-15s within the airborne and air assault military intelligence battalion , there are 9 PPS-15s and 3 PPS-5s.

[13]U.S. Army, FM 34-10-1, Tactics, Techniques and Procedures for the Remotely Monitored Battlefield Sensor System (REMBASS) (Washington: Department of the Army, 1991),1-1 through 1-4. See FM 34-10-1 for the capabilities and limitations of REMBASS.

[14]"FM 7-30",Draft (1990), 7-4. The are no jammers in the light infantry division. There are jammer available in the air assault and airborne units.

[15]"FM 7-30", Draft (1990), 2-34.

[16]Albert N. Garland, Infantry in Vietnam (New York: Ballantin Books, 1985), 17.

[17]U.S. Army Combined Arms Center, Reconnaissance, Surveillance, and Counterreconnaissance Study Group Interim Report (Phase I) (Fort Leavenworth: Department of the Army, 1989), 21.

[18]U.S. Army, "FM 7-20, The Infantry Battalion", TRADOC DRAG (Washington: Department of the Army, undated), 4-14.

[19]Howard W. Crawford Jr. and Robert M. Hensler, Joint Readiness Training Center (JRTC) Training Observations: Implications for Senior Army Leader Training (Carlisle Barracks, PA: U.S. Army War College, 1990), 128. Crawford and Hensler's study project reviewed the AARs from eleven active duty battalion task forces at JRTC from October 1987 to July 1989. In their survey of commanders at the division, brigade and battalion level that had units attend the JRTC, brigade commanders cited the problems with ad hoc organizations as the number one lesson learned. Brigade commanders simply stated the lesson learned as: "do not use ad hoc organizations."

[20]Scott R. McMichael, A Historical Perspective on Light Infantry, Research Survey No. 6 (Ft. Leavenworth, KS: Combat Studies Institute, U.S. Army Command and General Staff College, 1987). Scott McMichael's book has been instrumental in this study of light infantry recon and counterrecon operations. It provides superb information on the historical operations of light infantry forces.

[21]Unnamed author #307, The 547th Infantry Regiment Advance and Fighting under Winter Conditions 1 January 1942 - 18 March 1942 (Garmisch, Germany: Office of the Chief of Military History, 31 May 1947), 18. The information on the 547th in this monograph came from this source.

[22]Harry G. Summers, Jr., "Ground Warfare Lessons" in Military Lessons Learned of the Falkland Islands War; View from the United Sates, ed. Bruce W. Watson and Peter M. Dunn, (Boulder, Colorado: West View Press, 1984), 69.

Endnotes

[23]Summers, "Ground Warfare Lessons," 69.

[24]Summers, "Ground Warfare Lessons," 69.

[25]MG John Frost, 2 Para Falklands (London: Buchan & Enright Publishers, 1983), 49.

[26]Frost, 51.

[27]Frost, 56.

[28]Summers, "Ground Warfare Lessons," 70.

[29]Martin Middlebrook, Task Force - The Falklands War, 1982 (London: Penguin Books, 1987), 253.

[30]Frost, 58.

[31]Summers, "Ground Warfare Lessons," 72.

[32]McMicheal, xii-xiv. McMichael's study begins with the operation of the Chindits (composed of British, Gurkha, African and American troops) in the Burma campaign in 1944. His second chapter addresses the operation of the Chinese Communist Forces during the Korean War. The third case study discusses British operations in Malaya and Borneo from 1948 to 1966. Finally, he addresses the operations of the First Special Service Force, an elite Canadian-American regimental sized unit, in Italy from 1942-1944.

[33]McMichael, 230.

[34]McMichael, 230.

[35]McMichael, 224.

[36]McMichael, 225.

[37]Sources for this study included seven take home packages (After Action Reports from JRTC), Crawford and Hensler's study, and discussions with four recent observer/controllers at JRTC. The THPs are lettered A thru H in accordance with the non-disclosure rules of CALL at Fort Leavenworth, KS.

[38]Joint Readiness Training Center, JRTC Training Observations, 1991 Command Briefing for JRTC.

[39]Crawford and Hensler, 13.

[40]Crawford and Hensler, 9.

[41]Crawford and Hensler, 11.

[42]U.S. Army, Joint Readiness Training Center, Training After Action Report-E.

Endnotes

[43]U.S. Army, Joint Readiness Training Center, Training After Action Reports - A, B, D and E.

[44]Crawford and Hensler, 134. The next highest ratings were "actions on the objective" and "casualty evacuation"; each with 33%.

[45]JRTC Training Observations, 1991 Command Briefing.

[46]Crawford and Hensler, 14.

[47]Crawford and Hensler, 81.

[48]Crawford and Hensler, 85.

[49]Crawford and Hensler, 86.

[50]Joint Readiness Training Center, JRTC Training Observations, 1991 Command Briefing and several Take Home Packages.

[51]Joint Readiness Training Center, JRTC Training Observations, 1991 Command Briefing and several Take Home Packages.

[52]U.S. Army, Joint Readiness Training Center, Training After Action Report-B.

[53]U.S. Army, Joint Readiness Training Center, Training After Action Report-A.

[54]Assigned missions are listed in appendix D and every JRTC after action reports lists the scouts as "overburdened". They have no organic transportation by TOE. There are only 5 ANPRC 77 radios assigned to the platoon, which limit their communications capabilities.

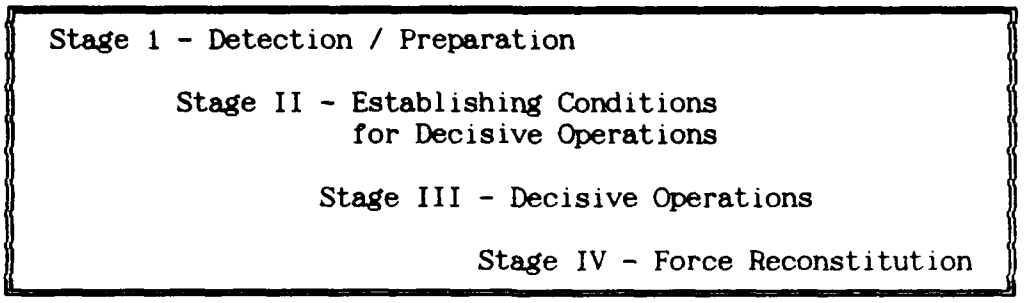
[55]U.S. Army Infantry School, Infantry Division (Light) Front-End Analysis (Infantry Analysis) (Fort Benning, GA: USAIS, 1985), 5-31. This study looked at adding dramatic technological innovations to the scout platoon that have not yet occurred. Its mobility problems could be solved by the Individual Lift Device or other transportation assets. Its limited range could be supplemented by remotely piloted vehicles. Its firepower could be increased by the AAWS-M medium antitank weapon. These are just a few of the recommendations of this study. All of these suggestions have not been able to be fulfilled because of a technological gap.

[56]U.S. Army Center for Army Lessons Learned, Operation Just Cause Lessons Learned Volume III (Fort Leavenworth, KS: U.S. Army Combined Arms Command, 1990), III-3.

[57]U.S. Army Training and Doctrine Command, TRADOC PAM 525-5, Airland Operations (Fort Monroe, VA: 1991), 46.

[58]TRADOC PAM 525-5 (1991), 16 and 17.

Endnotes



The first stage is preparation for the operation by obtaining information, movement planning, assessment of intelligence, IPB and staging capabilities. The second stage is using all means necessary to set the conditions for the best use of Army capabilities to achieve desired results. The third stage is conducting operations to achieve the desired end result. The fourth stage is preparing for further follow-on or new major engagements or campaigns.

[59]United States Army Infantry School, "White Paper: Airland Operations, Draft" (Fort Benning, GA: 1991), 15.

[60]William S. Lind, Maneuver Warfare Handbook (Boulder CO: Westview Press, 1985), 73.

[61]James L. Stokesbury, A Short History of World War I (New York: William Morrow & Company Inc., 1981), 212.
Hutier tactics were characterized by: fully briefed, highly trained troops; specialized units; short preliminary artillery barrages; close control of artillery; maneuver advance & infiltratiuon that bypassed strongpoints and flowed through weak spots. (p. 212)

[62]Lind, 75.

[63]U.S. Marine Corps, FMFM 1 Warfighting (Washington: Headquarters U.S. Marine Corps, 1989), 75.

[64]"White Paper: Airland Operations," 23.

[65]"White Paper: Airland Operations," 23. The concept of "extended close combat (ECC)" was introduced in the Airland Battle-Future (Heavy) Concept written by the Combined Arms Center, Ft. Leavenworth. This concept was never adopted as doctrine but the Infantry School is beginning to adopt it as an alternate term for Brigade "Deep" Operations.

[66]"White Paper: Airland Operations," 31.

[67]U.S. Army Infantry School, Infantry Division (Light) Front-End Analysis (Infantry Analysis) (Fort Benning, GA: USAIS, 1985). The 10,000 soldier limit and the 500 C141 sorties are oulined in this document. These requirements were the basis for much of the organization of the Light Infantry Division (LID). The LID was not necessarily designed according to combat capabilities. A recent letter from the commander 7th LID provides additional emphasis to this point. The letter is summarized below.

Endnotes

U.S. Army, 7th Infantry Division (Light), Letter to MG Labos, Deputy Chief of Staff for Operations, U.S. Army Forces Command (Fort Ord, CA: HQ 7th LID, 1991)

In fact, in this recent 1991 letter to DCSOPS FORSCOM, the commander 7th Infantry Division makes the following comments.

"The objective constraint of 10,000 personnel and 500 sorties is unrelaistic."

"The constraints of 10,000 soldiers and 500 sorties does not account for the increase in personnel and sorties required by mission specific combat support (CS) and combat service support (CSS) augmentation."

"Our contingency experience demonstrates that the 10,000 man and 500 sortie figures have little relevance."

These comments were part of the beginning of a Light Infantry Division Concept Review, which is presently ongoing.

[68]U.S. Army CAC, Special Study Group Interim Report (phase I), 8.

[69]U.S. Marine Corps, FMFRP 1-11, Fleet Marine Force Organization (Washington: Headquarters U.S. Marine Corps, 1990), 4-18.

[70]LTC Harry Murdoock, interview by author, 7 November 1991, Marine Corps Battalion Organizations, School of Advanced Military Studies, Fort Leavenworth, KS. LTC Murdock had just returned from HQ Marine Corps with updated information on organizational changes within the Marine Corps.

[71].U.S. Army Infantry School, SH 7-176-1, Infantry Reference Data Book Supplement (Fort Benning, GA: USAIS 1990), 4.

[72]U.S. Army CAC, Special Study Group Interim Report (Phase I), 50.

[73]Dates are difficult to specify due to budget decisions. The FDD office at CAC, Fort Leavenworth seems to think 1996-1997 while the intelligence school at Fort Huachuca seems to think it will be 1994-1995.

[74]LTG Julian J. Ewell and MG Ira A. Hunt, Jr., Sharpening the Combat Edge: The Use of Analysis to Reinforce Military Judgment (Washington: Department of the Army, 1974), 18.

[75]Major Michael Haith also recommended the addition of a fourth rifle company to the light infantry battalion during his SAMS research. Micheal E. Haith, Thickening the Light Division: The Need for a 4th Rifle Company in the Light Infantry Battalion (Fort Leavenworth: SAMS, 1989).

[76]Each type of light infantry unit would retain their current antitank organization. The LID would retain one platoon, while the airborne and air assault battalions would retain five.

[77]Ewell and Grant, 123.

[78]Ewell and Grant, 121.

[79]FM 34-130, 4-60.

Endnotes

[80]FM 34-130, 4-66.

[81]The Joint Chiefs of Staff, JCS Pub 1-02, Department of Defense Dictionary of Military and Associated Terms (Washington: The JCS, 1989), 94.

[82]U.S. Army, FM 101-5-1, Operational Terms and Symbols (Washington: Department of the Army, 1985), 1-39.

[83]FM 101-5-1, 1-60.

[84]FM 101-5-1, 1-68.

[85]"FM 7-20" (Draft) (undated), 7-49.

[86]James R. McDonough, "Training the Battalion Task Force," Military Review 68 (October 1988): 54.

[87]Jack W. Klimp, "Scouts and Scouting; A Lost Art?," Marine Corps Gazette 74 (July 1990): 75-76.

[88]U.S. Army Intelligence Center and School, "Operational and Organizational (O&O) Plan for the Unmanned Aerial Vehicle-Maneuever (UAV-M)", Coordinating Draft, (Fort Huachuca, Arizona: US Army Intelligence Center and School, 1987), Operational Mode Summary, 1.

[89]Miles A. Libbey and Patrick A Putignano, "See Deep; Shoot Deep; UAVs on the Future Battlefield," Military Review 71 (February 1991): 47.

[90]Lawrence G. Karch and James R. McGrath, Ph.D., "Remotely Piloted Vehicles for Company and Battalion Size Units," Marine Corps Gazette 73 (January 1989): 22.

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